



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO.       |
|---|-------------|----------------------|-------------------------------|------------------------|
| 10/643,244  | 08/18/2003  | Stephen John Dyks    | F3314(C)                      | 3282                   |
| 201 7590 05/15/2007<br>UNILEVER INTELLECTUAL PROPERTY GROUP<br>700 SYLVAN AVENUE,<br>BLDG C2 SOUTH<br>ENGLEWOOD CLIFFS, NJ 07632-3100 |             |                      | EXAMINER<br>MAHAFKEY, KELLY J |                        |
|   |             |                      | ART UNIT<br>1761              | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>05/15/2007       | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/643,244

**Applicant(s)**

DYKS ET AL.

**Examiner**

Kelly Mahafkey

**Art Unit**

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/30/06 & 2/28/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

Amendments made 10/30/06 and 2/28/07 have been entered.

Claims 1-13 are pending.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1 and 13 recite, "The open cavities are filled with a frozen aerated product". While applicant has support for some, i.e. including more than one, cavities as filled at the same time, applicant does not have support for "[all] the cavities of the apparatus as filled", as recited in claims 1 and 13.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The 103(a) rejection of claims 1-12 over OLS (German 3417196 A1) in view of Hui (ed.) (Dairy Science and Technology Handbook) has been withdrawn in light of applicant's amendments made 10/30/06 and 2/28/07.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over OLS (German 3417196 A1) in view of Hui (ed.) (Dairy Science and Technology Handbook) and Ezaki (JP App # 60230711).

Regarding claim 1, OLS 3417196 A1 (OLS) discloses of a method for producing a molded product comprising;

- a. Providing two separate forming elements,

Art Unit: 1761

- b. Providing at least one open cavity on a surface of each forming element,
- c. Providing filling devices for filling said cavities
- d. Filling two cavities, one on each forming element

Where in:

- i. The product is allowed to expand outside its cavity
- ii. The two cavities are moved opposite one another and the frozen aerated product in each cavity is pressed against the frozen aerated product of the other cavity

OLS teaches of a high rate process of filling expanded items into molded cavities through an extruder nozzle. Refer specifically to Figures 5 and 6, Abstract, Claims 1 and 16, and Pages 1-6. OLS teaches that the two separate forming elements are a pair of rollers wherein each roller has a multiplicity of open cavities on the surface, and the rollers counter rotate so that the respective cavities in the two forming elements lie opposite one another and the frozen aerated products of each cavity are pushed toward one another. OLS teaches that the degree of filling and hence the filling pressure that builds in the molding cavity is adjusted by varying the moving speeds of the moulds. Refer specifically to Figures 5 and 6, Abstract, Claims 1 and 16, and Pages 1-6. OLS, however, is silent to the specific products that can be molded and to the properties of those products as recited in claims 1, 2, 11, 12, and 13, two separate mold cavities as filled prior to the cavities moving opposite one another as recited in claims 1 and 13, the location of the molds at the minimum and maximum rotational speed of the mold as recited in claims 5-10, and to the cavities as filled with two filling devices or one filling device with two outputs as recited in claim 13.

Hui discloses of novelty equipment utilized for ice creams. Hui teaches that the sales performance of novelties has been and continues to be strong. Hui teaches the process of filling molds with expanded ice cream products (i.e. ice cream with overrun) is performed at high speeds. Hui discloses that molds are filled around  $-4^{\circ}\text{C}$ , which is near the initial freezing point of "ice cream" into molds that are chilled. Hui discloses that ice cream needs to be at these temperatures so that it will mould quickly when dispensed into a mold. Hui teaches that with molding, a pump arrangement is included.

Art Unit: 1761

Hui teaches that when pumping it is effective to produce a product that melts more slowly and retains more overrun. Hui teaches of a savings for a 2.75 fluid ounce bar (i.e. mould) at a 65% overrun. Hui also teaches that extrusion can be performed with the molding process at temperatures as low as  $-10^{\circ}\text{C}$ , depending on the freezer and its extrusion capabilities. Refer specifically to Pages 251 and 252.

Regarding the specific product to be molded, it would have been obvious to one skilled in the art at the time the invention was made to include a frozen aerated (i.e. expanded) confection, such as ice cream, in the invention as disclosed by OLS. One would have been motivated to do so in order to gain the benefits of extruded molded aerated frozen confections, such as producing an extruded molded food product that would yield a strong sales performance as taught by Hui. Furthermore, as evidenced by Ezaki, it was known in the art at the time the invention was made to include a frozen aerated confection in a process similar to the one as taught by OLS and to the process as instantly claimed.

Regarding the properties of the molded product, specifically the overrun rate as recited in claim 1, it would have been obvious to one skilled in the art at the time the invention was made to include an overrun of 65% since Hui teaches that overrun products which are molded and extruded at 65% increase the amount of the final product (or save a portion of the product that could be lost). To select a particular percentage of overrun would have been obvious depending on the particular degree of savings desired.

Regarding the properties of the molded product, specifically the temperature of the frozen aerated product when filled into the mold cavities, it would have been obvious to one skilled in the art at the time the invention was made to fill the frozen aerated product into a mould as disclosed by OLS at a temperature of about  $-4^{\circ}\text{C}$  in view of Hui. One would have been motivated to do so because Hui teaches that  $-4^{\circ}\text{C}$  (i.e. a temperature near the initial freezing point of ice cream) is an optimal temperature to fill molds for quick and easy molding. One would have been further motivated to vary the fill temperature from  $-4^{\circ}\text{C}$  depending on the specific composition being utilized and the initial freezing point of that composition in order to ensure a quick and easy mould.

Regarding the rotation speed of the rollers, specifically the rotational speed of the rollers at a stop when the filling device is over a mold cavity and two filled mold cavities face each other, and at a maximal value when the filling device is between two mold cavities, OLS teaches of varying rotation speeds (i.e. maximum rotational speeds and minimum (stopped) rotational speeds) depending on the desired degree of filling and pressure in the molding cavity. It would have been obvious to one of ordinary skill in the art at the time the invention was made to stop the rollers when the filling device is over a mold cavity and two filled mold cavities face each other so that the mold cavities could be properly filled (i.e. without spillage, to the correct level, ect) and so that the frozen confection material within the mold cavities can solidify and expand to take the shape of the mold cavity. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the maximal rotational value of the rollers to be when the filling device is between two mold cavities, in order to expedite the processing, such that there is minimal lag time between the fillings. One would have been further motivated to vary the rotation speeds depending on the desired degree of filling and pressure in the molding cavity as taught by OLS.

Regarding two separate mold cavities as filled prior to the cavities moving opposite one another as recited in claims 1 and 13 and to the cavities as filled with two filling devices or one filling device with two outputs as recited in claim 13, Ezaki teaches of molding frozen confections. Ezaki teaches that two separate mold cavities are filled prior to the cavities moving opposite one another, and that the frozen confection is filled by a device with one output for each mold cavity. Thus, it was known in the art at the time the invention was made to fill mold cavities after they are moved opposite one another with one filling output nozzle, as taught by OLS, and it was known in the art at the time the invention was made to fill mold cavities before they are moved opposite one another with two filling output nozzles as taught by Ezaki. To fill the mold cavities with a confection from either one output or two output elements, before or after the mold cavities are moved opposite one another would not bring a patentable distinction to the claims absent any clear and convincing arguments to the contrary. To choose one filling of the cavities with one output element or two, and thus filling the cavities before

or after they are moved opposite one another would be a matter of design choice based on the available equipment. One would have been further motivated to chose filling the cavities with a two element output nozzle, before the cavities are moved opposite one another, in order to have the ability to introduce two different types of flavors into the confection.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly Mahafkey whose telephone number is (571) 272-2739. The examiner can normally be reached on Monday through Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kelly Mahafkey  
Examiner  
Art Unit 1761



MILTON I. CANO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1761

